

# **SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**

## **DRAFT NEGATIVE DECLARATION FOR: PETRO-DIAMOND TERMINAL COMPANY MARINE TERMINAL PERMIT MODIFICATION PROJECT**

**SCH No.**

**August 2007**

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## **CHAPTER 1**

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### **PROJECT DESCRIPTION**

Introduction  
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## 1.0 PROJECT DESCRIPTION

### 1.1 INTRODUCTION

The Petro-Diamond Terminal Company (PDTC) has proposed modifications to the air permit for its marine terminal located at 1920 Lugger Way, Long Beach, California, within the Port of Long Beach. Specifically, PDTC operators have requested modifications to its South Coast Air Quality Management District (SCAQMD) air permits in order to adjust the allowable throughput of the terminal, allow the use of a 30-day average for the maximum allowable throughput through the truck loading rack, and clarify the allowable number of marine vessels that can visit the facility. The proposed modifications will give Petro-Diamond more flexibility in how products are distributed from the Marine Terminal and lead to lower vessel emissions. Modification to permit conditions on current truck loading permits are also expected to make trucking logistics smoother.

This document, prepared pursuant to the California Environmental Quality Act (CEQA), Public Resources Code 21000 et seq., constitutes a Negative Declaration for the Petro-Diamond Marine Terminal Permit Modification Project. A Negative Declaration is prepared for a project subject to CEQA when the lead agency determines there is no substantial evidence that the project may have a significant effect on the environment (CEQA Guidelines §15064(f)(3), §15070(a)).

### 1.2 AGENCY AUTHORITY

California Public Resources Code §21000 et seq., requires that the environmental impacts of proposed “projects” be evaluated and that feasible methods to reduce, avoid or eliminate significant adverse impacts of these projects be identified and implemented. The Petro-Diamond Marine Terminal Permit Modification Project constitutes a “project” as defined by CEQA. To fulfill the purpose and intent of CEQA, the SCAQMD is the “lead agency” for the proposed project, and as such is the agency that has prepared this Negative Declaration. In addition, as the public agency which may grant the discretionary approval, the SCAQMD has prepared this Negative Declaration to address the potential environmental impacts associated with the Petro-Diamond Marine Terminal Permit Modification Project.

The lead agency is the public agency that has the principal responsibility for carrying out or approving a project that may have a significant adverse effect upon the environment (Public Resources Code §21067). Since the SCAQMD has the greatest responsibility for supervising or approving the Petro-Diamond Marine Terminal Permit Modification Project as a whole, it was determined that the SCAQMD would be the most appropriate public agency to act as lead agency for the proposed project (CEQA Guidelines §15051(b)).

To fulfill the purpose and intent of CEQA, the SCAQMD has prepared this Negative Declaration to address potential adverse environmental impacts associated with the requested changes to the permit conditions at the Petro-Diamond Marine Terminal.

### 1.3 PROJECT OBJECTIVE

The purpose of the Petro-Diamond Marine Terminal Permit Modification Project is to:

- Correct the permitted throughput limit of the marine terminal to include the August 2003 permitted volume increase of Tank 10;
- Utilize an average allowable daily throughput of the truck loading rack; and
- Clarify the definition of “ships” in the air permit by using the term “vessels” and allow for a ship emission equivalent number of barges.

### 1.4 PROJECT LOCATION

PDTC currently is located on Pier B at 1920 Lugger Way in the northern portion of the Port of Long Beach (Port). Figure 1 shows the location of the PDTC terminal. The site is located in the Port’s District 2 – Northeast Harbor Planning District and is surrounded by heavy industrial and other port-related uses, including terminals and facilities operated by Toyota Motor Sales, U.S.A., National Gypsum, and Shell Oil Products, U.S. No land use approvals are required for the PDTC proposed project.

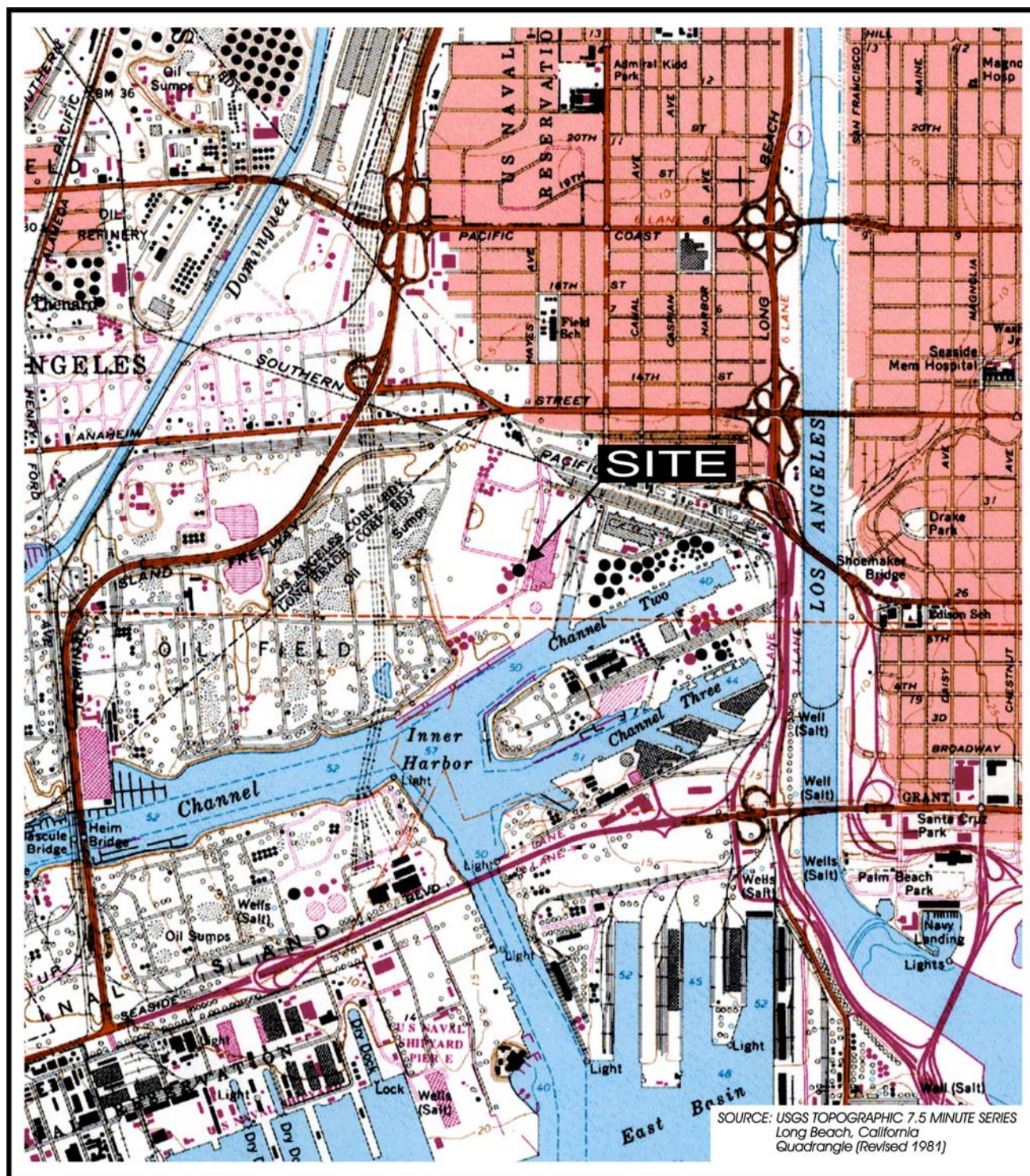
### 1.5 PROJECT DESCRIPTION

#### 1.5.1 CURRENT PDTC OPERATIONS

PDTC currently operates a petroleum fuels distribution facility located in the Port of Long Beach that contains 590,000 barrels of storage capacity and loads up to approximately 30,000 barrels (1,260,000 gallons) per day into trucks. Petroleum products can also be transported to and from the PDTC Terminal via pipeline. The facility is designed and operated for the purpose of receiving, storing and loading gasoline, ethanol, diesel and biodiesel.

PDTC receives its petroleum products (including automotive fuels and components) via pipelines, vessels, barges, and tanker trucks, and the products are delivered to PDTC from around the world, depending on market conditions. Recent examples of places that supply products to PDTC include Singapore, Saudi Arabia and other parts of the Middle East, Caribbean, Texas, Japan, and Washington. PDTC stores the products in above-ground storage tanks and delivers the product to its customers via pipeline or tanker truck. PDTC uses Berths B82 and B83 for marine operations, which include a variety of underground pipelines for sending and receiving petroleum products to and from its customers and suppliers. PDTC also uses a variety of trucking companies for transporting petroleum products through the truck rack. The facility operates 24 hours per day, seven days per week.





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**SITE LOCATION MAP**  
**PETRO-DIAMOND TERMINAL COMPANY**  
1920 West Luger Way  
Long Beach, California 90813

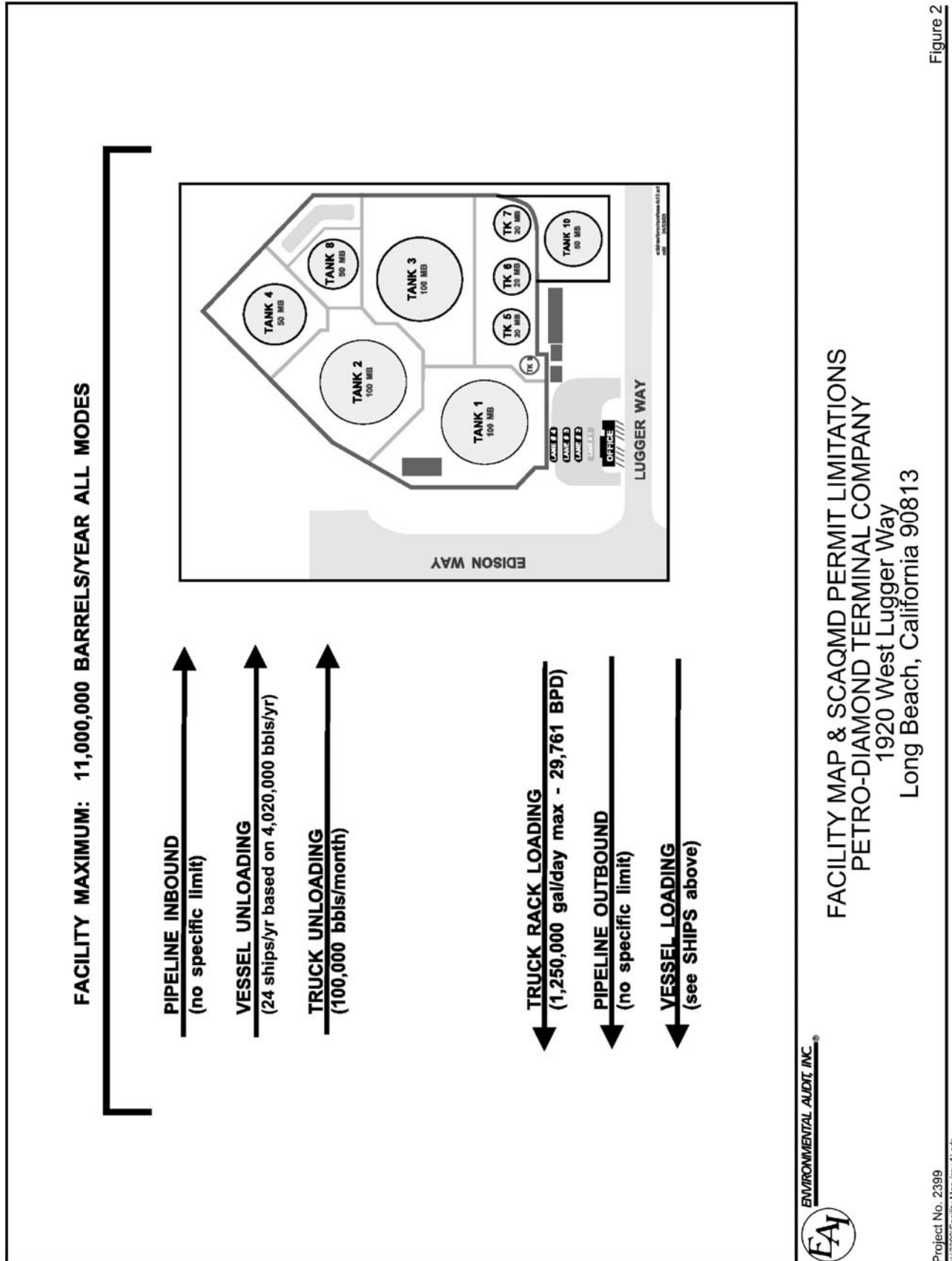
0 2,000'



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Figure 1  
Original In Color





The marine terminal has throughput limitations in the form of SCAQMD permit conditions that limit the amount of material and ultimately the number of trucks and ships that can visit the terminal. PDTC has a current throughput limit of 11 million barrels per year, which applies to all of the products transported into and out of the facility, whether by ship, truck or pipeline. The terminal is limited to 24 ship visits per year. Finally, the terminal also has a throughput limitation of 29,761 barrels per day on its truck loading rack, which limits the volume of material that can be loaded onto trucks. The terminal has no specific limitation on the amount of material that can be transported by pipeline into or away from the terminal; however, pipeline throughput is still subject to the facility maximum limit. See Figure 2 for the plot plan of the facility and additional information on throughput limitations.

### **1.5.2 PROPOSED PROJECT MODIFICATIONS**

PDTC is requesting modifications to a number of existing SCAQMD permit conditions in order to change the throughput limitation of certain materials, trucks or ships. Table 1 summarizes these changes. The proposed project does not entail any physical modifications to the facility, only changes to existing permit conditions as explained below.

**TABLE 1**  
**PDTC Existing Conditions and Proposed Terminal Modifications**

| <b>Terminal Activity</b>  | <b>Existing Condition</b>         | <b>Proposed Modification</b>                |
|---------------------------|-----------------------------------|---|
| Total Terminal Throughput | 11,000,000 barrels/year           | 14,600,000 barrels/year                     |
| Truck Loading Rack        | 29,761 barrels/day <sup>(1)</sup> | 29,761 barrels/day <sup>(2)</sup>           |
| Ships Visits              | 24 ships/year                     | 24 ships or ship equivalents <sup>(3)</sup> |

(1) Based on a maximum day.

(2) Based on a 30-day average.

(3) Barges are much smaller than ships, carry less product, and generate fewer emissions. Therefore, PDTC is requesting modification to this permit condition to allow for 10 barges to be equivalent to 1 ship. See Chapter 2, Section 3.2 for a further discussion.

PDTC is proposing the following modifications:

- Modify the throughput of the terminal from the current permit limit of 11 million barrels per year to 14.6 million barrels per year to account for the SCAQMD permit approval for a new tank (Storage Tank 10) at the PDTC facility in August 2003, which limited the tank throughput to 300,000 barrels per month or 3.6 million barrels per year. This change will allow PDTC to move more product via pipeline since the current 11 million barrels per year limitation is consistent with the truck rack limitation of 29,761 barrels per day (about 893,000 barrels per month or 11 million barrels per year). However, this permit condition is based on the assumption that the entire terminal throughput would go out over the truck racks. This is not the case

since PDTC also transfers materials out by pipeline, which results in no emissions. Modifying this condition will allow PDTC to transport more material (an additional 3.6 million barrels per year) via pipeline. No physical changes or changes to the existing air quality permits are required for the existing storage tanks to handle the proposed throughput increase at the terminal. The increased throughput will only go out via pipeline because PDTC already has limits on the throughput of trucks at the loading rack and the number of ships that can visit the terminal.

- PDTC is requesting that the truck rack limit be stated as an average monthly (30-day) limit, rather than a maximum daily limit. The existing permit for the truck loading rack limits the throughput of the truck rack to a maximum of 29,761 barrels per day. PDTC is requesting that the throughput be changed to 29,761 barrels per day based on a 30-day average (about 893,000 barrels per month). This permit change allows PDTC to handle peak demand periods, e.g., the week prior to a holiday. This change will allow for easier operations since PDTC does not control the trucks arriving at the terminal. A 30-day limit will allow PDTC to check the facilities' throughput over a month's time, and customers can be notified of potential terminal closures in advance of arriving at the terminal. Currently, trucks may show up at the terminal after the daily maximum has been reached and must be turned away.
- Finally, PDTC is requesting that the limitation of 24 ship visits per year be modified. When the PDTC facility was originally permitted, it was believed that large ships (only) would visit the terminal carrying 167,500 barrels each (for a total throughput of 4,020,000 barrels). In practice, few large ships visit the terminal and more smaller barges visit the terminal. PDTC requires far more than 24 barge visits to reach its throughput of 4.32 million barrels. Therefore, PDTC is requesting that the permit be modified to allow it to receive 24 ship visits or ship equivalents per year based on equivalent ship versus barge SO<sub>x</sub> emissions. In order to determine the number of barges that it would take to generate emissions equivalent to one ship visit, emission calculations were completed for both ships and barges (see Table 2). The emissions include emissions from the main propulsion system and auxiliary engines. As shown in Table 2, 15 barge visits produce about the same carbon monoxide (CO), volatile organic compounds (VOCs), and nitrogen oxide (NO<sub>x</sub>) emissions as one ship visit (25,000 to 50,000 dead weight ton). About 30 barge visits produce the same particulate matter less than 10 microns in diameter (PM<sub>10</sub>) emissions as one ship visit. Finally, about 10 barge visits produce the same sulfur oxide (SO<sub>x</sub>) emissions as one ship visit. Therefore, 10 barge visits produce emissions that are equivalent to one ship visit for all pollutants. In fact, 10 barge visits would produce less CO, VOC, NO<sub>x</sub> and PM<sub>10</sub> than one ship visit. See Chapter 2, Section 3.2 and Appendix A for more detailed information on the emission calculation methodology for all emission sources. Therefore, PDTC is requesting that the permit condition be modified to include 24 ship visits or equivalent ship visits, with one ship equivalent to 10 barges.

**TABLE 2**

**Comparison of Ship versus Barge Emissions\***

| <b>Vessel</b>           | <b>NO<sub>x</sub></b> | <b>CO</b> | <b>VOC</b> | <b>PM<sub>10</sub></b> | <b>PM<sub>2.5</sub></b> | <b>SO<sub>x</sub></b> |
|-------------------------|-----------------------|-----------|------------|------------------------|-------------------------|-----------------------|
| 1 Ship Total Emissions  | 27,814                | 2,205     | 1,028      | 2,879                  | 2,307                   | 15,530                |
| 1 Barge Total Emissions | 1,886                 | 149       | 67         | 94                     | 76                      | 1,504                 |
| Barge Equivalence       | 14                    | 14        | 15         | 30                     | 30                      | 10                    |

\* For more details on the emission calculations and assumptions see Chapter 2, Section 3.2 and Appendix A.

The proposed modifications will not require any additional facilities and no construction activities are required to complete the proposed modifications. The proposed modifications are limited to modifications to air quality Permits to Operate so the only agency approval that is required is from the SCAQMD.

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